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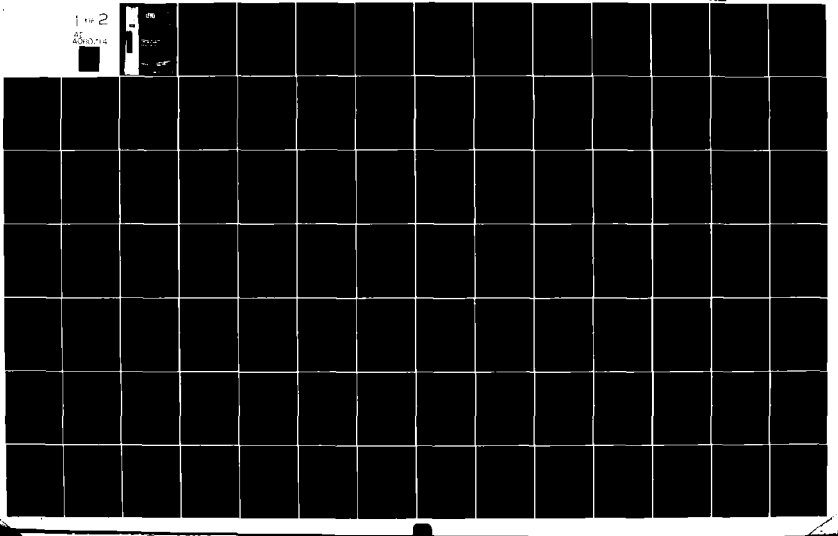

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20. ABSTRACT

This is the Soviet Laser Bibliography for March-April 1979 and is no. 40 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; crystal growing; theoretical aspects of advanced lasers; and general laser theory. Laser applications are listed under biological effects; communications; beam propagation; computer technology; holography; laser-induced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical effects; beam-target interaction; and plasma generation and diagnostics.

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BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS

No. 40

MARCH - APRIL 1979

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This document was prepared for the Defense Intelligence Agency under an intragovernment agreement. It is intended to facilitate access of government researchers to Soviet laser literature.

Comments should be addressed to the Defense Intelligence Agency, Directorate for Scientific and Technical Intelligence, ATTN: DT-1A.

Introduction

This bibliography has been compiled under an interagency agreement as a continuing effort to document current Soviet-bloc developments in the quantum electronics field. The period covered is March-April 1979, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Russian Reference Journals are included, as well as entries from the CIRC data base not otherwise covered. Laser items from the popular or semipopular press are generally omitted.

For convenience we have abbreviated frequently cited source names; a source abbreviations list and an author index are included. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry (RZh, KL) indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library. The authors' affiliations are indicated by the numbers in parentheses following the authors' names in the text and are listed in the Author Affiliations List. New affiliations are assigned a new number and are added to a cumulative list which includes all affiliations from 1969 to the present. Only those affiliations which appear in this issue are listed in this issue's Author Affiliations List.

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H. LASER MEASUREMENT APPLICATIONS

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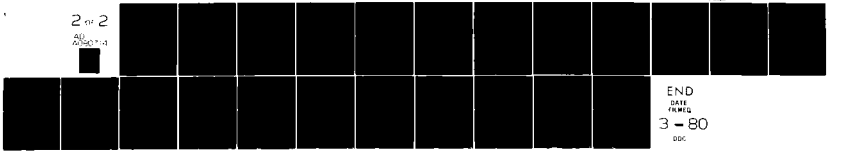

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IV. SOURCE ABBREVIATIONS

	(CIRC Codens)	
BWAT	(BWATA)	Biuletyn Wojskowej akademii technicznej J. Dabrowskiego
DAN B	(DBLRA)	Akademiya nauk Belorusskoy SSR. Doklady
DAN SSSR	(DANKA)	Akademiya nauk SSSR. Doklady
Elek	(EKNTB)	Elektronika [Poland]
FAiO	(IFAOA)	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana
FGiV	(FGVZA)	Fizika goreniya i vzryva
FiKhOM	(FKOMA)	Fizika i khimiya obrabotka materialov
FTT	(FTVTA)	Fizika tverdogo tela
IAN Arm	(IAAFA)	Akademiya nauk Armyanskoy SSR. Izvestiya. Fizika
IAN Az	(IAFMA)	Akademiya nauk Azerbaydzhanskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh i matematicheskikh nauk
IAN Fiz	(IANFA)	Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya
IAN Mold	(IZFMB)	Akademiya nauk Moldavskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh i matematicheskikh nauk
IVUZ Fiz	(IVUFA)	Izvestiya vysshikh uchebnykh zavedeniy. Fizika
IVUZ Priboro	(IVUBA)	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye
IVUZ Radioelektr	(IVUZB)	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVUZ Radiofiz	(IVYRA)	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika
JTP	(JTPHD)	Journal of Technical Physics [Poland]
KE	(KVEKA)	Kvantovaya elektronika
KhVE	(KHVKA)	Khimiya vysokikh energiy
KLDV	(KLDVA)	Knizhnaya letopis'. Dopolnitel'nyy vypusk
Kristal	(KRISA)	Kristallografiya
KSpF	(KRSFA)	Kratkiye soobshcheniya po fizike

NM	(IVNMA)	Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy
OiS	OPSPA)	Optika i spektroskopiya
OMP	(OPMPA)	Optiko-mekhanicheskaya promyshlennost'
Otkr izobr	(OIPOV)	Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki
PTE	(PRTEA)	Pribory i tekhnika eksperimenta
RiE	(RAELA)	Radiotekhnika i elektronika
RZhF	(RZFZA)	Referativnyy zhurnal. Fizika
RZhGeofiz	(GZGFA)	Referativnyy zhurnal. Geofizika
RZhMekh	(RZMKA)	Referativnyy zhurnal. Mekhanika
RZhRadiot	(RZRAB)	Referativnyy zhurnal. Radiotekhnika
Sb1	Sbornik	Vsesoyuznaya konferentsiya. Problemy izucheniya upravlyayemykh parametrami lazernogo izlucheniya. 1st. Tashkent, 1978. Tezisy dokladov. Part 2. Tashkent, 1978.
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Sb4		Vsesoyuznyy seminar po fizike vakuumnogo ul'trafioletovogo izlucheniya i vzaimodeystviyu izlucheniya s veshchestvom. VUF-78, Leningrad, 1978. Leningrad, 1978.
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Sb9		Gologaficheskiye sposoby obrabotki slozhnykh elektricheskikh signalov. Moskva, 1977.

Sb10		Geodeziya, kartografiya i aerofotos"yemka, no. 30, 1979.
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Sb15		Opyt i metody ekologicheskogo monitoringa. Pushchino, 1978.
Sb16		Azerbaydzhanskaya respublikanskaya mezhvuznaya konferentsiya po fizike. 4th, 1978. Tezisy dokladov. Baku, 1978.
Sb17		Fizicheskaya elektronika, no. 17, L'vov, 1978.
TKiT	(TKTEA)	Tekhnika kino i televedeniya
Tr1	Trudy	Leningradskiy elektrotekhnicheskiy institut. Izvestiya, no. 237, 1978.
Tr2		Moskovskoye vyssheye tekhnicheskoye uchilishche. Trudy, no. 283, 1978.
Tr3		Moskovskiy institut elektronnoy tekhniki. Sbornik nauchnykh trudov, no. 35, 1977.
Tr4		Leningradskiy elektrotekhnicheskiy institut. Izvestiya, no. 229, 1978.
Tr5		Trudy uchebnykh institutov svyazi. Priyemno-peredayushchaya tekhnika i antenny. Leningrad, 1978.
Tr6		Moskovskiy fiziko-tekhnicheskiy institut. Trudy. Seriya Obshchaya i molekulyarnaya fizika, no. 10, 1978.
Tr7		Trudy uchebnykh institutov svyazi. Sistemy i sredstva peredachi informatsii po kanalam svyazi. Leningrad, 1978.
Tr8		Tsentral'nyy NII svyazi. Sbornik nauchnykh trudov, no. 1, 1978.
Tr9		Institut eksperimental'noy meteorologii. Trudy, no. 8(81), 1978.

Tr10		Buryatskiy institut yestestvennykh nauk Buryatskogo filiala SOAN. Trudy, no. 22, 1977.
Tr11		Tsentral'naya aerologicheskaya observatoriya. Trudy, no. 139, 1979.
Tr12		Glavnaya geofizicheskaya observatoriya. Trudy, no. 406, 1978.
Tr13		VNII Viziko-tekhnicheskikh i radiotekhnicheskikh izmereniy. Trudy, no. 36(68), 1978.
Tr14		Radiotekhnicheskiy institut AN SSSR. Trudy, no. 32, 1978.
Tr15		Moskovskoye vysshaye tekhnicheskoye uchilishche. Trudy, no. 285, 1978.
TVT	(TVTYA)	Teplofizika vysokikh temperatur
UFN	(UFNAA)	Uspekhi fizicheskikh nauk
UFZh	(UFIZA)	Ukrainskiy fizicheskiy zhurnal
VMU	(VMUFA)	Moskovskiy universitet. Vestnik. Fizika, astronomiya
ZhETF	(ZEIFA)	Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhETF P	(ZFPRA)	Pis'ma v Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhNiPFiK	(ZNPFA)	Zhurnal nauchnoy i prikladnoy fotografii i kinematografii
ZhPMTF	(ZPMFA)	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki
ZhPS	(ZPSBA)	Zhurnal prikladnoy spektroskopii
ZhTF	(ZTEFA)	Zhurnal tekhnicheskoy fiziki
ZhTF P	(PZTFD)	Pis'ma v Zhurnal tekhnicheskoy fiziki

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